

Alaska Energy Cost Reduction Program Progress Report

Grantee: Alaska Power & Telephone Company)

Project Name: Allakaket Power Plant Relocation (Denali)

Grant # 169-05

Period of Report: Third Quarter 2006 (July 1 to September 30, 2006)

Project Activities Completed:

The manufacturing and assembly of the new powerhouse was completed and tested in the AP&T Seattle shop. The modules were then barged to Alaska, trucked to Fairbanks, and flown into Allakaket.

To be sure our pad would freeze; the contracted pad engineer conducted soil samples of the pad and determined more silt needed to be added to the mix. This was accomplished by removing the first foot of the pad in place to mix in more silt. Once specifications pad were met, trenches were dug and thermo-siphon condensers were laid. Trenches were dug around the perimeter, 2 to 8 inches of insulation placed over the pad, covered with fuel vapor barriers and back filled. Another foot of silt / gravel mixture was spread and compacted over the barrier system. Bentomat blanket was laid by hand over the entire pad. Finally another foot of silt / gravel mix was laid and compacted.

After placing the modules, the modules were welded together and final equipment assembly was completed. While the plant work was conducted, timbers were installed in the ground to carry the fuel line. Contractor Interior Mobile Welding Services built a fuel line bulk fuel tank farm, near the washeteria, the on-site gallon fuel tank.

APT staff installed step-up bank pole and three-phase bank, upgraded the existing single-phase power line to three-phase, and connected to the power plant. Finally, they installed communication lines to the power plant.

The new Allakaket powerhouse came online at 3:23 p.m. on Friday, September 29th and is fully operational. The old powerhouse has been taken out-of-service with generator breakers temporarily made inoperable.

Project existing or potential problems:

Early winter and/or excessive amounts of precipitation delaying installation of the roof over the entire complex

Activities targeted for Next Reporting Period, Fourth Quarter 2006:

Maintain personnel at the plant through mid-October to evaluate the performance and perform start-up maintenance procedures.

Convert the school's connection from the old power plant to a utility pole in the new system.

Make final fuel line safety-shutoff component determination and order components

Fully decommission and remove the old powerhouse components for use elsewhere in the AP&T system.